

REMARKS

Please cancel claims 1-23. New claims 24-37 have been added. Claims 24-37 are now pending in this application.

The Prior Art Problem to be Solved

New claim 24 is a method for assessing the risk of fraud of a financial transaction within a distributed system, and new claim 31 claims a distributed risk assessment system for assessing the risk of fraud of a financial transaction.

Prior art fraud detection systems detect fraud by processing transactional data at a central server. Unfortunately, additional data located at the precise source of the transaction is not transmitted to the central server for processing, and thus a complete risk assessment cannot be performed. In other words, performing risk scoring at a single, central location generally does not enable all of the available detail regarding that transaction to be included in the risk assessment.

For example, if a central scoring location receives transactional data indicating a \$5,000 purchase of computer equipment, there is no additional data received indicating whether a single item was purchased or whether five \$1,000 computers were purchased (even though the purchase of five computers would be considered riskier). This problem is especially prevalent in online transactions. Other examples of at-source data that are typically not sent to a central location to be included in a risk assessment include Web browser information, a TCP/IP address, an e-mail address, server information, etc. The problem to be solved then, is how to include this remote, at source data, in the assessment of risk of a financial transaction.

One solution might be to make a concerted effort to send ALL at-source data from remote locations to a central server for processing. But, this approach is problematic in that it can be difficult to arrange for all the data to be transmitted centrally, the types of data can change thus requiring the central server to adapt to new data fields, and data privacy issues emerge when sensitive information is being sent to a central site.

The Present Invention

Even though technical hurdles exist, the best way to solve this problem is to perform processing and scoring of the transactional data both centrally and on local client computers. But because additional at-source information (that might be sensitive) is now being used at distributed locations to assess risk (and because certain information will be sent from a central location to a distributed location), the data is encrypted and processing is performed on the encrypted data, thus eliminating the possibility of releasing sensitive information. It is further realized that because the data is being processed both centrally and at distributed client locations, that novel techniques for processing the data can be used. It is through a combination of these techniques that the presently claimed invention addresses the above problem.

For example, claim 24 requires that first and second financial transactions are received at a central computer system. These transactions represent a financial transaction for a particular account and a previous transaction for that account. Features are generated for each transaction and the changes between these features are then determined at the central server. As is known to one of skill in the art, use of *features* (or *characteristic variables*) is a known technique of assessing risk based upon sets of data. Before these feature changes are transmitted to a client computer system for further processing claim 24 requires that they are encrypted to prevent the release of any sensitive information.

Consideration of this application and issuance of a Notice of Allowance at an early date are respectfully requested. If the Examiner believes a telephone conference would in any way expedite prosecution, please do not hesitate to telephone the undersigned at (612) 252-3330.

Respectfully submitted,
BEYER WEAVER & THOMAS

Jonathan O. Scott
Registration No. 39,364

BEYER WEAVER & THOMAS, LLP
P.O. Box 778
Berkeley, CA 94704-0778
Telephone: (612) 252-3330
Facsimile: (612) 825-6304